

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte TADASHI TAKANO

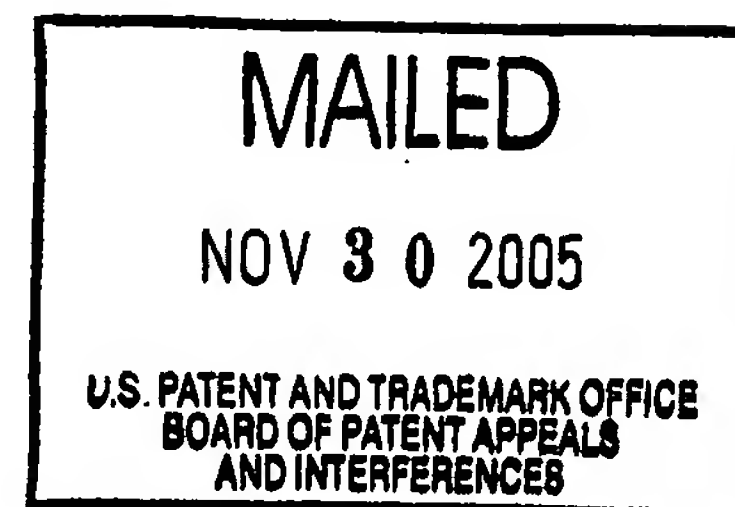
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Appeal No. 2005-2339  
Application No. 10/707,349

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HEARD: November 17, 2005

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Before HAIRSTON, BLANKENSHIP, and MACDONALD, Administrative Patent Judges.

HAIRSTON, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 1 and 3 through 10.

The disclosed invention relates to a high power synchronous electric motor that has a high capacity terminal circuit positioned at one axial end of stator poles, a magnet detector positioned at the other axial end of the stator poles, a resinous body encasing the poles and the high capacity terminal circuit, and end closures with bearings that journal opposite ends of a rotor shaft. The end closures are affixed to each end of the

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resinous body. The magnet detector is carried by the end closure that is located opposite the high capacity terminal circuit.

Claim 1 is the only independent claim on appeal, and it reads as follows:

1. A high power synchronous electric motor comprised of a rotor having a rotor shaft carrying a plurality of circumferentially spaced permanent magnets, a stator encircling said rotor and comprised of a plurality of poles around which coil windings are formed, a high capacity terminal circuit positioned at one axial end of said poles in circuit with said coil windings, a magnet detector positioned at the other axial end of said poles and cooperating with said permanent magnets for determining the rotational position of said rotor, and a resinous body encasing said poles, said windings, and said high capacity terminal circuit to form a single unit, and end closure carrying bearings for journaling opposite ends of said rotor shaft directly and detachably fixed to said resinous body.

The references relied on by the examiner are:

Apple	1,584,502	May 11, 1926
Yamamoto et al. (Yamamoto)	4,496,866	Jan. 29, 1985
Nagate et al. (Nagate)	5,864,192	Jan. 26, 1999
Kim	5,977,671	Nov. 2, 1999
Kawakami et al. (Kawakami)	6,011,339	Jan. 4, 2000
Takagi et al. (Takagi)	6,081,056	Jun. 27, 2000

Claims 1 and 3 through 6 stand rejected under 35 U.S.C.

§ 103(a) as being unpatentable over Nagate in view of Kawakami and Apple.

Claims 1 and 3 through 7 stand rejected under 35 U.S.C.

§ 103(a) as being unpatentable over Kawakami in view of Kim and Yamamoto.

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Claims 8 through 10 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kawakami in view of Kim, Yamamoto and Takagi.

Reference is made to the brief and the answer for the respective positions of the appellant and the examiner.

#### OPINION

We have carefully considered the entire record before us, and we will reverse the obviousness rejections of claims 1 and 3 through 10.

We agree with the examiner's findings (answer, page 4) that Nagate (Figure 22) discloses the electric motor structure of claim 1 except for "a high capacity terminal circuit positioned at one axial end of said poles in circuit with said coil windings, a magnet detector positioned at the other axial end of said poles and cooperating with said permanent magnets for determining the rotational position of said rotor, and a resinous body encasing said poles, said windings, and said high capacity terminal circuit to form a single unit, and end closures carrying bearing for journaling opposite ends of said rotor shaft directly and detachably fixed to said resinous body." We do not, however, agree with the examiner's finding (answer, page 4) that Kawakami

discloses "a high capacity terminal circuit and a resinous body encasing said poles, said windings, and said high capacity terminal circuit to form a single unit in Figure 5 for the purpose of ensuring ready connection of the end portion of a winding to external lead wires." The examiner's contentions to the contrary notwithstanding, Kawakami (Figure 5) discloses neither a resinous casing nor a high capacity terminal circuit. We additionally agree with the examiner's finding (answer, page 4) that Apple discloses end closures 42 and 43 for a dynamo electric machine (Figure 3).

The examiner contends (answer, page 5) that "[s]ince Nagate et al., Kawakami et al. and Apple are all from the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others." Based upon the teachings of the references, the examiner concludes (answer, page 5) that it would have been obvious to one of ordinary skill in the art "to include high capacity terminal circuit as taught by Kawakami et al. for the purpose discussed above," and "to use end closures and threaded fasteners as taught by Apple for the purpose discussed above."

Appellant argues inter alia (brief, page 4) that:

Again, however, he does not explain why one skilled in the art would make the combination other than the references all relate to the common field of electric motors. There must be more basis in the art than this to make a combination. . . . It is clear from the rejection that the only basis for making the proposed combination is to construct a structure that meets the claim language. The Examiner has not made out a *prima facie* case of obviousness.

We agree with the appellant's arguments. Other than the appellant's disclosed and claimed invention, there is a complete lack of a sound reason for combining the teachings of the applied references. The fact that the references are from the same field of endeavor can not take the place of evidence in the record to support a prima facie case of obviousness. The factual question of motivation is material to patentability, and it can not be resolved based on the subjective belief and unknown authority of the examiner. In re Lee, 277 F.3d 1338, 1344, 61 USPQ2d 1430, 1434 (Fed. Cir. 2002). Thus, the obviousness rejection of claims 1 and 3 through 6 based upon the combined teachings of Nagate, Kawakami and Apple is reversed.

Turning next to the obviousness rejection of claims 1 and 3 through 7 based upon the combined teachings of Kawakami, Kim and Yamamoto, we do not agree with the examiner's findings concerning the teachings of Kawakami for the reasons indicated supra.

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Although we agree with the examiner's findings (answer, page 5) that Kim discloses a magnet detector 247 that cooperates with magnetic ring 260 for determining a position of the rotor 220 (column 4, lines 54 through 61), we do not, however, agree with the examiner's finding (answer, page 6) that Yamamoto discloses end closures with threaded fasteners. The reference numerals 12 and 13 in Yamamoto are merely brackets 12 and 13 that are not on the end of the submersible electric motor (Figure 2), and the reference numeral 6 in this reference is directed to a metal part with an aperture that receives a screw. Even if the reference contained the teachings that the examiner believes they possess, the examiner relies on the same reasoning discussed supra to combine the teachings of the references. Since the same field of endeavor reasoning is not, without more, a sound reason for establishing a prima facie case of obviousness, the rejection of claims 1 and 3 through 7 based upon the combined teachings of Kawakami, Kim and Yamamoto is reversed.


The obviousness rejection of claims 8 through 10 is reversed because the additional teachings found in Takagi fail to cure the noted shortcomings in the teachings of Kawakami, Kim and Yamamoto.

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## DECISION

The decision of the examiner rejecting claims 1 and 3 through 10 under 35 U.S.C. § 103(a) is reversed.

REVERSED

  
KENNETH W. HAIRSTON  
Administrative Patent Judge

HOWARD B. BLANKENSHIP  
Administrative Patent Judge

BOARD OF PATENT  
APPEALS  
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ALLEN R. MACDONALD  
Administrative Patent Judge

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